AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.   (previously presented) A method comprising:

accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages;

accepting user input labeling at least two of the two or more buttons on the one or more displayed pages;

accepting user input defining at least one interaction between the labeled at least two buttons;

accepting user input specifying at least one constraint cost for the defined at least one interaction;

calculating at least one constraint cost value corresponding, respectively, to the at least one constraint cost; and

automatically assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized and the at least one constraint cost value is indicative of a relative optimization of the at least one constraint cost.

2.   (previously presented) The method of Claim 1, wherein said accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

accepting user input specifying one or more sizes of the one or more displayed pages.

3.	(previously presented) The method of Claim 1, wherein said accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

accepting user input specifying two or more locations of the two or more buttons on the one or more displayed pages.

4.	(previously presented) The method of Claim 1, wherein said accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

accepting user input labeling at least two buttons on a first displayed page presented to a user.

5.	(previously presented) The method of Claim 1, wherein said accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

accepting user input labeling at least one button on a first displayed page presented to a user; and

accepting user input labeling at least one button on a second displayed page presented to the user.

6.	(previously presented) The method of Claim 1, wherein said accepting user input defining at least one interaction between the labeled at least two buttons further comprises:

accepting user input identifying at least one relationship between the labeled at least two buttons, said relationship selected from a relationship group including a Fitts'-movement interaction, a Euclidean-distance interaction, a City-Block-distance interaction, an X-directed interaction, and a Y-directed interaction.

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7.   (previously presented) The method of Claim 1, wherein said accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

accepting user input specifying at least one constraint cost for the defined at least one interaction, said at least one constraint cost selected from a constraint-cost group including a global-difficulty cost, a pages-to-close-buttons cost, a pages-to-fixed buttons cost, a path-difficulty cost, a pages-to-far buttons cost, and a parent-to-child variability cost.

8.   (previously presented) The method of Claim 1, wherein said accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

accepting user input specifying at least one weighting factor to be associated with the specified at least one constraint cost.

9.   (previously presented) The method of Claim 1, wherein said assigning the labels of the labeled at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized further comprises:

assigning at least one label of the labeled at least two buttons among the two or more buttons on the one or more displayed pages on the basis of an optimization procedure selected from an optimization-procedure group including a gradient descent substantial optimization procedure and a simulated annealing substantial optimization procedure.

10.   (Previously Presented) A system comprising:

circuitry for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete

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electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device;

circuitry for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device;

circuitry for accepting user input defining at least one interaction between the labeled at least two buttons, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device;

circuitry for accepting user input specifying at least one constraint cost for the defined at least one interaction, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device;

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circuitry for calculating at least one constraint cost value corresponding, respectively, to the at least one constraint cost, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device; and

circuitry for automatically assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized and the at least one constraint cost value is indicative of a relative optimization of the at least one constraint cost, said circuitry selected from an electrical-circuitry group including electrical circuitry having at least one discrete electrical circuit, electrical circuitry having at least one integrated circuit, electrical circuitry having at least one application specific integrated circuit, electrical circuitry forming a general purpose computing device configured by a computer program, electrical circuitry forming a memory device, and electrical circuitry forming a communications device.

11.   (previously presented) The system of Claim 10, wherein said circuitry for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

circuitry for accepting user input specifying one or more sizes of the one or more displayed pages.

12.   (previously presented) The system of Claim 10, wherein said circuitry for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

circuitry for accepting user input specifying two or more locations of the

two or more buttons on the one or more displayed pages.

13.   (previously presented) The system of Claim 10, wherein said circuitry for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

circuitry for accepting user input labeling at least two buttons on a first displayed page presented to a user.

14.   (previously presented) The system of Claim 10, wherein said circuitry for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

circuitry for accepting user input labeling at least one button on a first displayed page presented to a user; and

circuitry for accepting user input labeling at least one button on a second displayed page presented to the user.

15.   (previously presented) The system of Claim 10, wherein said circuitry for accepting user input defining at least one interaction between the labeled at least two buttons further comprises:

circuitry for accepting user input identifying at least one relationship between the labeled at least two buttons, said relationship selected from a relationship group including a Fitts'-movement interaction, a Euclidean-distance interaction, a City-Block-distance interaction, an X-directed interaction, and a Y-directed interaction.

16. (previously presented) The system of Claim 10, wherein said circuitry for accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

circuitry for accepting user input specifying at least one constraint cost for the defined at least one interaction, said at least one constraint cost selected from a constraint-cost group including a global-difficulty cost, a pages-to-close-buttons cost, a pages-to-fixed buttons cost, a path-difficulty cost, a pages-to-far buttons cost, and a parent-to-child variability cost.

17. (previously presented) The system of Claim 10, wherein said circuitry for accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

circuitry for accepting user input specifying at least one weighting factor to be associated with the specified at least one constraint cost.

18. (previously presented) The system of Claim 10, wherein said circuitry for assigning the labels of the labeled at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized further comprises:

circuitry for assigning at least one label of the labeled at least two buttons among the two or more buttons on the one or more displayed pages on the basis of an optimization procedure selected from an optimization-procedure group including a gradient descent substantial optimization procedure and a simulated annealing substantial optimization procedure.

19. (previously presented) A system comprising:

means for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages;

means for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages;

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means for accepting user input defining at least one interaction between the labeled at least two buttons;

means for accepting user input specifying at least one constraint cost for the defined at least one interaction;

means for calculating at least one constraint cost value corresponding, respectively, to the at least one constraint cost and

means for automatically assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized and the at least one constraint cost value is indicative of a relative optimization of the at least one constraint cost.

20.   (previously presented) The system of Claim 19, wherein said means for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

means for accepting user input specifying one or more sizes of the one or more displayed pages.

21.   (previously presented) The system of Claim 19, wherein said means for accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages further comprises:

means for accepting user input specifying two or more locations of the two or more buttons on the one or more displayed pages.

22.   (previously presented) The system of Claim 19, wherein said means for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

means for accepting user input labeling at least two buttons on a first displayed page presented to a user.

23.   (previously presented) The system of Claim 19, wherein said means for accepting user input labeling at least two of the two or more buttons on the one or more displayed pages further comprises:

means for accepting user input labeling at least one button on a first displayed page presented to a user; and

means for accepting user input labeling at least one button on a second displayed page presented to the user.

24.   (previously presented) The system of Claim 19, wherein said means for accepting user input defining at least one interaction between the labeled at least two buttons further comprises:

means for accepting user input identifying at least one relationship between the labeled at least two buttons, said relationship selected from a relationship group including a Fitts'-movement interaction, a Euclidean-distance interaction, a City-Block-distance interaction, an X-directed interaction, and a Y-directed interaction.

25.   (previously presented) The system of Claim 19, wherein said means for accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

means for accepting user input specifying at least one constraint cost for the defined at least one interaction, said at least one constraint cost selected from a constraint-cost group including a global-difficulty cost, a pages-to-close-buttons cost, a pages-to-fixed buttons cost, a path-difficulty cost, a pages-to-far buttons cost, and a parent-to-child variability cost.

26.   (previously presented) The system of Claim 19, wherein said means for accepting user input specifying at least one constraint cost for the defined at least one interaction further comprises:

means for accepting user input specifying at least one weighting factor to be associated with the specified at least one constraint cost.

27.   (previously presented) The system of Claim 19, wherein said means for assigning the labels of the labeled at least two buttons among the two or more buttons on one

or more displayed pages such that the at least one constraint cost is substantially optimized further comprises:

means for assigning at least one label of the labeled at least two buttons among the two or more buttons on the one or more displayed pages on the basis of an optimization procedure selected from an optimization-procedure group including a gradient descent substantial optimization procedure and a simulated annealing substantial optimization procedure.

28.   (new) A computer program product comprising a computer useable medium including a computer readable program, wherein the computer readable program when executed on a computer causes the computer to:

accept user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages;

accept user input labeling at least two of the two or more buttons on the one or more displayed pages;

accept user input defining at least one interaction between the labeled at least two buttons;

accept user input specifying at least one constraint cost for the defined at least one interaction;

calculate at least one constraint cost value corresponding, respectively, to the at least one constraint cost; and

automatically assign the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized and the at least one constraint cost value is indicative of a relative optimization of the at least one constraint cost.